

Claims

1. A method for forming a ferrocapacitor comprising:

forming electrode elements over a substructure, the electrode elements being in electrical contact with electrically conductive elements extending into
5 the substructure; and

depositing ferroelectric material between the electrode elements.
2. A method according to claim 1 in which the ferroelectric material is formed as a layer covering the sides of the electrode elements, the method further including a step of depositing support material over the ferroelectric
10 layer to fill gaps between the electrode elements.
3. A method according to claim 2 in which the layer of ferroelectric material is formed by depositing ferroelectric material and then etching it to reduce its thickness.
4. A method according to claim 2 in which the support material comprises
15 electrically conductive material at least at an interface between the support material and the ferroelectric material.
5. A method according to claim 1 in which the electrode elements are formed over an insulating layer containing openings, the electrodes contacting the electrically conductive elements of the substructure through the openings.
- 20 6. A ferrocapacitor device formed by a method according to claim 1.
7. An FeRAM device including at least one ferrocapacitor formed by a method according to claim 1.
8. An FeRAM device comprising electrode elements and ferroelectric elements, the electrode elements and ferroelectric elements being formed

over a substructure, the electrodes being in electrical contact with electrically conductive elements extending into the substructure and the ferroelectric elements being arranged between the electrodes as layers formed on the lateral sides of the electrodes.